To: Ostrander, David[Ostrander.David@epa.gov]

Cc: Dhieux, Joyel[Dhieux.Joyel@epa.gov]; McKean, Deborah[mckean.deborah@epa.gov];

Cristiano, Gina[Cristiano.Gina@epa.gov]; Merritt, Steven[Merritt.Steven@epa.gov]

From: Stevenson, Peter

Sent: Tue 8/11/2015 2:40:29 AM
Subject: Re: long term sediment strategy

The field sampling plan has provisions for collecting sediment samples and defers to an SOP that was developed by ERT. Typically we use spoons or similar devices to scoop up sediment from the surface of the sediment to about 2" in depth. However, the yellow boy deposited by the Gold King blow out has deposited on rocks and sand beds and what not and is maybe a millimeter thick. There may still be a substantial deposit of it up on the gravel beds on Butch's farm that could be scraped up. The gravel beds are at the mouth of the canyon where the river flattens out for the first time. Butch wanted to sample it but neither of us could find the time. You could document what is in the yellow boy (Fe, Mn, Ca, Mg, Pb, Zn, As, Cd, etc.). Otherwise the standard procedure of sediment collection may be viewed by the locals as somewhat inadequate as a procedure to characterize the thin layer of yellow boy visible on the rocks and sandbars above and below the waterline.

Sent from my iPhone

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On Aug 10, 2015, at 5:40 PM, Ostrander, David <Ostrander.David@epa.gov> wrote:
I got orders to have this and our process for reopening the river to HQ a sap
Sent from my iPhone
On Aug 10, 2015, at 4:42 PM, Stevenson, Peter <Stevenson.Peter@epa.gov> wrote:
I forwarded this to Dan Wall, Fisheries Ecologist. We need to make sure he is in the loop for all long term monitoring.
From: Ostrander, David
Sent: Monday, August 10, 2015 2:22 PM
To: Dhieux, Joyel; Stevenson, Peter; McKean, Deborah; Cristiano, Gina; Merritt, Steven
Subject: long term sediment strategy
All; Mathy has asked what our long term strategy for sediments. Is this statement ok?
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>> We have an initial strategy for sediment sampling to assess an immediate decision on re-opening the river to recreation. Long term sediment assessments will be developed over the next couple of weeks. >>

>> This river drains a mining district that has a multi decade history of mine discharges and large releases of mining and milling wastes. Sediment assessment in the upper reaches above Silverton has been limited but efforts in the last two years have been conducted to develop an screening ecological risk assessment and continued before this most recent incident.

>> Sent from my iPad